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Reviewer: Anne Corrigan

Timestamp: [year=2008; month=6; day=24; hr=17; min=18; sec=47; ms=300; ]

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Finished: 2008-06-19 15:09:50.095

Elapsed: 0 hr(s) 0 min(s) 26 sec(s) 90 ms

Total Warnings: 0

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No. of SeqIDs Defined: 1617

Actual SeqID Count: 1617

# SEQUENCE LISTING

<110> Diggans, James C.  
Elashoff, Michael

<120> Methods for Molecular Toxicology Modeling

<130> GENE-120/02US

<140> 10580423

<141> 2008-06-19

<150> PCT/US2004/039593

<151> 2004-11-24

<150> PCT/US03/37556

<151> 2003-11-24

<150> 60/613,831

<151> 2004-09-29

<150> 60/554,981

<151> 2004-03-22

<160> 1617

<170> PatentIn Ver. 2.1

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<213> Rattus norvegicus

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<210> 2

<211> 158

<212> DNA

<213> Rattus norvegicus

<400> 2

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aatcggccgt ttgtcgttc agaattgttc tgcacagaag atggagaaaa tctaaagtga 120
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<210> 3

<211> 318

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc\_feature

<222> (1)..(318)

<223> n = a or c or g or t

<400> 3

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cagataatta cattgttaat tccataatag catttacaat atcgttactg tngtttttna 180
gggctcggac agccttttgc cttgacacat ttgcttgtga catgaccaac tctatgtcct 240
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<210> 4

<211> 308

<212> DNA

<213> *Rattus norvegicus*

<220>

<221> misc\_feature

<222> (1)..(308)

<223> n = a or c or g or t

<400> 4

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agcagtgaga tccatttcaa agtgaaaatg acaacacatc tcaagaagct caaagaatcg 180
tactgtcaaa gacagggagt tccaatgant tcaactcagg ttctctttga aggtcagaga 240
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<210> 5

<211> 608

<212> DNA

<213> *Rattus norvegicus*

<400> 5

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gtctccacat ttctctgcaa aatgtttag cctctataac tgtatgatag tgtaatgcat 180
gccttcagtt gtaagtggcc agatcgcgct acagtgacat tgaaacctgc tctctaattg 240
gccctgtaca gtttgcttat ttataaattc atttaaaaca ctacagctgt tgaatggtta 300
caacctacgc ctccggtcct aacttcagtt gttctcctcg gtgtgcagcc agctgttcca 360
cactgtatta ttgtaactta tttagtgaag tcagaagcag tagacagatg ttggtgcaat 420
acaagtattg tgtgcattta tcgtaataaa gtgctccgcg tcggttcagt tcctcacagc 480
ttctcacagt gcatgtctga ctgtagtctg taaatagagg tcagtgtccg tgctgctaac 540
aggtatcgat cgcacagaca tgatttcagg taaataaata gattctacga taaatgggta 600
aaagaaaa 608
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<210> 6

<211> 619

<212> DNA

<213> *Rattus norvegicus*

<400> 6

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ataattctgt gcattgggac tatagaaatg tcaactgtccc tgctccacat cttcaaatta 120
acattctcag gtcacaatag taagtcttcc cacaaggaac cttccggaaa aacaagctgt 180
ttctcggct catatttccc gctttttgta gcatgcacca gcaatctatc caagaagtat 240
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atattgggga gtaaggagga gatccaccag caagcccaca gttgttaaca gccataagat 300
tagatacaag cacaaaggga tatgtcaaca tactggcaaa gaatcctgtg acagcttggg 360
aataactttt catttcattc atggtagaga cccactgtc cagtgcatag gtattgatga 420
gataagccag tgagttacac agccacaaag aaatgatgtc acctaggagg cgaggaatga 480
ggcccgcaaa aaatcctacg atgccttctt cccggtagat ggttactatg gagtacaca 540
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<210> 7

<211> 496

<212> DNA

<213> *Rattus norvegicus*

<400> 7

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ggtgagggcc agctaataaa gcctcccctc ccccccttaa ctttgttcat agggcaaatg 180
gctgacggaa ggagaagggtg ggtaggttga gagggtatgc gtcaagactt ggggagaggt 240
agcagatagc cgtcttgagg ctctgttttc aatgagtagt cctagtcgac cttaaccaa 300
gctccatccg attgtattct tgccaaaaca caacagacac atgcacgaac atggggcgta 360
agcaataatg tcctctcgtg ttctccacgg ctgctcgaac caagtggctg gttcatttgg 420
ttgacactga ttgccttta accatgacgg ttctgtttt ttatttcaca gaaagccaat 480
aaaattgttt agctat                                     496

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<210> 8

<211> 617

<212> DNA

<213> *Rattus norvegicus*

<400> 8

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aagaagaaac tattgagttt ccgtcttaat cctcttcaga acttgaatca tcctcttggt 180
cagaaagttc cggcacaggg aagcggagaa tggcagctac tccagtcagc tgaccaagct 240
gttccccaga cacgtggaga ctggagaata tccttacggg gcccgcatc tctttcacac 300
tgtccaccag cctgacatac cggtccggg tggccacac ctgatgccgg aagagctcat 360
cactgatgag caaggtgtca atcgccaagg cttcattggc cctctccacc tgcttgagtc 420
catagaatgc tcggtcagggt tcgtgctgta acattttgta gaagtcatcc aaggctttta 480
cttccccggc agctttcgtg tctgaaaggc ggctcgctac agtaggatca cataggacct 540
ctttcaggga gtacctgtgt ccagaggagg cgtgtacctg aaggaatttg gagccgtttt 600
ccaggagcac cttgttt                                     617

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<210> 9

<211> 598

<212> DNA

<213> *Rattus norvegicus*

<220>

<221> misc\_feature

<222> (1)..(598)

<223> n = a or c or g or t

<400> 9

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tccttcctt ctgatcacta aaaaatgcaa gattcattcg ttacaagcca tgtgcgattc 120
ggaccctcgc aaggcagtgc aggtctgcgg tccagcctca ggtgctgcac tatttcccat 180
tctcagcgct gaacattcgt tctgtgagca tccgctccaa ctttatggca tcagcagcaa 240

```

```

acttgcggat cccatcagag agctttctcca cagccatttg gtcctcattg tgcagccaac 300
ggaaggcctt ctcgccaga tgtatcttct ccaagtcact ggtctgggct gctttgacgg 360
aaagcgtggg tgcagcttg ctgctgtcct tgagcagctc cccagaagc ttgggtgaga 420
tggtgaggaa atcacagcct gccagcgctt tgatctcacc cgtgttacgg aaggaagcac 480
ccatgacaat ggtcttgtag ccaaactttt tgtagtagtt gtagattttt gtgacactct 540
tcaccccaag gtcctcctgn ggttcgtagg atttcttgtc gtgtttgcac atgcagtc 598

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<210> 10

<211> 644

<212> DNA

<213> *Rattus norvegicus*

<400> 10

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gctttgacaa aataccggat acaaagaact gtaggaaaga atgatttggt ctggctccca 120
gtccattgta ccagtaggag cagctcataa ctgtaacagc aggaacatga gagttcgtct 180
acatctctgt cttgggagat ggtgtcagga gaagctcaag gtcacctca gggatgcagt 240
gaactcaagg ctagecctgg gtacatgaga ccagcatcca atcccgaacg gcatttttcc 300
ttcttgccgg atcatccttc ccagaaccct ggggagaaat gccaaactg tctgttcac 360
gtcatcttgt tttgcctgga ttttgtgggt gaggagcctt cagtcttctt cgagaacaca 420
taggtacaag acttgtaga atcttcagtc tttcctcaag tctggatgac agatcccttc 480
tattgctgct catcgtcttc aatttcgtca tctgggtgag caccactggg gacgggcgta 540
tcccacgcag ccaccgggc acgcacttag ccaactgaga agcccaccaa acgccagttc 600
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<210> 11

<211> 646

<212> DNA

<213> *Rattus norvegicus*

<400> 11

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catatactta atctatgagg agaggctgac tactatctct tttatctctt tcaggagaag 120
gaaggcaagc aagaaaggga aggtcagcca ccatgactga aatccaggca atggctgaaa 180
gcctggaggt aagacaagta acttaactgt gtcaaaaagt ggggtcaaag gcgcagtagt 240
gccactacca cgaaggctga tcctggagtg ggtgctctg cccatcgga actctggttt 300
cttgggtgggt ggggtgtgaa ggagtcctct tgttgactat gttaatgtga cagttaatag 360
gggtgacaca cccacatggc aggcacagc ggctgtgtg acatccacac acccacatca 420
aggtttctat taacttctgg tccccaaact cctgctctta gcagtagatc agaagtggta 480
cgcacgaatg cctggaaaat tccactctat gtaacacctt tggtttaaag acattttcca 540
gtgaataaca gtgaaaagt gaattagtaa ctattggtgt taaaccggtt aattctcagg 600
atcaggccta tgggattcca ccatgcaatg tatctgaaca aattct 646

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<210> 12

<211> 513

<212> DNA

<213> *Rattus norvegicus*

<400> 12

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tacattcatg tccagaacac ttagcataca tcagggttta tacaagggtg cagaggctat 120
aggcacaatg atacaaaata taaagtatat ttccatctat aaatacacag ccggggactt 180
ccctaggcac caatcctggc tccatcagtg cccttctctg ccatctcacc tccaacctca 240
gatcttccga gtggccggag gctgtttgta cctgggctgt tcctaagggg tcttgtaaag 300
ggcatcactg gccgccatgt tctcctgtca cccctcccc tctttcattc ctgtctaaga 360
atggacaaca ctctccctgt tgatatagag attcaacaat aaacaacaac atgacagatc 420
attcacaaaa gagcagtggg taaaagtgtc ctcgtttaaa ggaagtcttt ggcaagaata 480

```

&lt;210&gt; 13

&lt;211&gt; 637

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)..(637)

&lt;223&gt; n = a or c or g or t

&lt;400&gt; 13

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cataccagct caattttaat tttaaagtga aaaatgtaca ggtgggaaag ttaagcaacg 60
ccctgcagat tcataacaag gagctgacct agttgtccca ctacaagctg acagctctcc 120
agcagtgatt gatttgtcac agcacagaaa tgccacctg gacttgtggt ccgcttacta 180
actggaggaa gcagttttaa gtcttaccac ggctgtgct caaagtgagc actgcacttt 240
gagaaagttg tttgaccagt cagcaatgtc tgctagctga cttacccgac tggccatgag 300
tctcatctgc acgttgactc gcctagggga gggctcctggt ctgtgtcaaa ctctctggta 360
ccataaaaaac caagtaacgg tggatctgac aggttaccct gagagcttaa gaagcagagt 420
atttaacttc atttgtagan aagaagggag tagtacaggc tataggctga ggtagccttc 480
atttaaagtg caatctactt gcgataaata tagtaactag gacccgttcc aagcagctat 540
catagtcatg ttgatgctag ctaactagaa cctggttggt cagttctcac acacatcaca 600
agcagaagcc cttgcagtaa gctatcagtg agaagag 637
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&lt;210&gt; 14

&lt;211&gt; 524

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)..(524)

&lt;223&gt; n = a or c or g or t

&lt;400&gt; 14

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acagagagca cagcccctca tgactggtgc caggtcacat gcagcacagt tcctcttccc 120
tgtcagacag tgtctttaac taaggacaga cagtacgtgg agcgtaaagca agggattcgg 180
gcactgtgaa gggggcagct cctcgccagc tggccccagt cagatacact atggtggtca 240
gttctttctg tgcagatgac aagggaaga tgaaccatgc tgacagagga tggggcaggc 300
gggtcgagcc actgtgagtc agaaggctga cctccacggt gcaggatttg ctctctgcan 360
ggatacagag tgctcagttt gcagatctgc tggtagctga cctcgatgat gacgacatga 420
atgggagggg gatgggtgac ccaagcaggc cagcagagtg atgatgggcc agagagggct 480
cctgatctct cttgtggttg ggcaggcccc ggtggctcat gagg 524
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&lt;210&gt; 15

&lt;211&gt; 528

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)..(528)

&lt;223&gt; n = a or c or g or t

&lt;400&gt; 15

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ttcatctcct agtcctacat atctatctcc acctaaactc atgtgctttc ttttacagct 120
cactgaatcc cttagcgctg cctatatgta gcgctaagtg caggtgtaca gcatgggtag 180
cctctcaggg accacatatc tgacgaaagc tgactctcct cccagcagtc atcccaacag 240
atctccaact agggatggga cttcctgata cctacccac ttatgctgag actttgactg 300
agcttaatac tcttcaatat ttttctccta aataagattt ctaaacacag aactataaaa 360
ttttgagcag aaaaaagtct tgtttttatg tacacaagca taatctgtgg gtattgcagt 420
cacagattaa caagagcata aaaacgagag gcagagcaan gatctctttt cangaatgag 480
aaaaaaacc acaaggctcc agatctccan anagtgggtg gcacaagg 528

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<210> 16

<211> 597

<212> DNA

<213> *Rattus norvegicus*

<400> 16

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gcaaattgcac agtggacatg gctagcagac aagctgtgaa tgaataaaga gttcacactg 120
ctcccatgct gtagtgacta agacagctct aagccacctc ctctcagcc tctcctcaa 180
actctccttc ctctcagct gtagcatcct ggtactgctg gtactcggac accagggtcat 240
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ccggaaaggc cgtgctagtt gccaatgaag gtgccgggca tttttaaggc accgggtgga 420
atgtcacaga cagctgtttt cacgttggtg gggatcaact cgggcaagta actgctgtcc 480
ctgttttggt catttaccat cgggtcgggca ccgccttcaa taacatgcgg ccctgaaaa 540
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<210> 17

<211> 591

<212> DNA

<213> *Rattus norvegicus*

<400> 17

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ccactagaaa aggtgagtaa aaaggaccca tgggccatct gggccaacc aggggcggtg 120
gcacatgcct ttactcccat cacttgggag gtggaggcag gcagatctgt gaggttgagg 180
ccagcctggt tgacagttag ttccaggcaa gccagagcta catactgaga ccctgtctca 240
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cagagcaggg cctgggcatt tctctggtac atgtaggagt gaggccttat gaaagacccc 360
gcactgagca gaggcacaga ggacactgcc tacctgtttg agctgtctac ctgtctccac 420
aggacaggcg gacattccaa tgccatcctc gtagggtccag cctgacttac acaccagaa 480
gggatcaagc ctggcctgca ttctgtaagg atgttcagaa cttcacggtg ctattcagag 540
ccccgagaa tagccggtcg cgggagatca ccagtggagt gtaaatgtcc t 591

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<210> 18

<211> 520

<212> DNA

<213> *Rattus norvegicus*

<400> 18

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cactcaagac gccaaagggtg tgggtttggc tgagtatgaa aggtaccagg cagaggtcag 180
cttggggcta tgtgagctgg ccaaccaag ggagaggggt aggtgaacag ggtttccagt 240
gtcccgtgta cccacggcg gccaaaggc taacatgggg tctctggtgc tgccaacaag 300
gcctacccta gtgctaagcc tgccgctgag tgagcaggtt gtgtgttggg gtcaggatgc 360
ccctcctaag gcgttactgc tataagctac tctgtcccag ggcagtaagg aaccacaggg 420

```



gacattttcc ccacgagggt ccaatgggtc aaatcactga agccttcagc gcctatggct 480  
ggcacaccag gggaacaagg gcgtgggcgt ggggtgtggag 520

<210> 19

<211> 589

<212> DNA

<213> Rattus norvegicus

<400> 19

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gtatagacaa ggggttgaaga aaagaaatga gtatgcagat acccgtgctg tgattgaagt 180  
agctaaagaa agcagtatta ctggcaaatg ctaacaaata actgtggggt gtgaattggg 240  
ggccccaca cactcctgtg tttgaatgct cggctcacag ggagtggcac tgttaggagg 300  
tggcctcctt ggaggaagtg tgtcactgtg ggggtgggct ctggagggtc ctcctctcgc 360  
tcaggctcga ccacgtgggg agagcttcct tttggttcc tgtacaagac agtctctttc 420  
tgactgcctt tggatcaaga tgtagaactc tcagctcatt ctccagcacc attgatagga 480  
agcctggatg ctgccatgtc tgcccacctt gatgataatg gacggaacct ctgaaactgg 540  
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<210> 20

<211> 671

<212> DNA

<213> Rattus norvegicus

<220>

<221> misc\_feature

<222> (1)..(671)

<223> n = a or c or g or t

<400> 20

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tttactccaa tatctagaat gtctcaggac cacatgctga tactacacag aacagaaggg 180  
agctgagcag aaccacacgt aaatgcaaac ttaagaactt tatggtattg ctctgggtgcc 240  
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gatgagaacc tacagactga acatcctgct ttcttctac ctcagtccga cgctggacat 420  
cctggagtgt aaggcactag aactggcctg agaagtgtc caagcttcag ttcttggtgt 480  
gcaaaagaaa ttgtggcata gatcttttga aacataataa aataactccc cctcctctt 540  
atattctgtt attcacagac aaaaagacaa ggaggtanat gtttgcaaag attaaaaaac 600  
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<211> 631

<212> DNA

<213> Rattus norvegicus

<400> 21

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agtaaaaaag gaaagattga cattgaagat gggactagaa acccctactt aggggccttc 180  
aaacggtttc tcacacacat ctgtgaggta ggttattatc cacattttgt acaagagaaa 240  
actacacaag gttacatacc ttgtgctgcc ataatagcaa acagggaatt agatccaatt 300  
agatccggtc cttagctttg catctctttt ctttataaac tttaaaatat aaagactgct 360  
agtaattgca ttcattttta aagcataaga aggcagccaa atagtttccc ggggtggcttt 420

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acaaagtgaac acaaatgaac agaaaatgca ttcagtgaag acattccaat ggtgacgctg 480
taaggtctgg tcaagtggaa ccaaaaggca gaagcaaacc acgtgaccgc ctgtgggaca 540
ggtctcagga aaacggggga gctgggggca gcagactttg aacacacggt tacggctact 600
ctgcaagtat ttgagaatgc accaggtact c 631

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<210> 22
<211> 499
<212> DNA
<213> Rattus norvegicus

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<400> 22
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ggtgatcctt gtgcctccg ggcccgaac tcctccagtt ctcggaagaa atgctgaagt 480
caaagatggg agtatggca 499

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<210> 23
<211> 483
<212> DNA
<213> Rattus norvegicus

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<400> 23
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tggtggaata ctcttcttgg tgctcaacca ttctcagaaa cacttgatat ttcttgtcat 180
aatatttttt atcagcacgc tctgggaaca caaccttccc cactttgtct attcttgcca 240
ttgcctcctg cacagaagca aagtcctctg aggcacaggc acccagaata gcagctccca 300
cgaggacaga ctccacctct tgtgacagaa ccacaggcat gccagtaatg tcagcatgca 360
tttgacaaaa aaggggattc ttgcttaggc ctccacataa gaagagggta ctaagagaat 420
gtcctgctgc ttccatggtc tcaatgatga agcgagtccc gaaagcaatg gcttgaatag 480
tgg 483

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<210> 24
<211> 558
<212> DNA
<213> Rattus norvegicus

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<400> 24
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catgaaaagg tacacctctg tcgtcggcct tgtttacaag acccagagct tcttattaat 120
gtgagtatca aacaaccttc tttgtctctg aaacataact caagtaggcg gccgatggac 180
ctgccacaca cgtgttcgag gatggga

```